

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-20. (Canceled).

21. (Currently Amended) A fuel reformer, comprising:

a reforming element comprising at least one reforming catalyst passage supporting a reforming catalyst which generates reformat gas from fuel;

a reformat gas manifold communicating with said at least one reforming catalyst passage and collecting the generated reformat gas; and plural supply passages communicating with said at least one reforming catalyst passage and collecting the generated reformat gas; and plural supply passages communicating with the reformat gas manifold, said at least one reforming catalyst passage being disposed parallel to ~~between~~ the supply passages; wherein said at least one reforming catalyst passage and the supply passages are installed substantially in the same plane in the reforming element;

a combustion element having at least one combustion gas passage, which heats the reforming element by the heat of combustion gas generated by burning the generated reformat gas with air in said at least one combustion gas passage, the reforming element and combustion element being laminated in the fuel reformer; and

plural supply holes arranged in a line in the direction of combustion gas flow along said at least one combustion gas passage and provided between the reforming element and the combustion element, each supply hole communicating with said at least one combustion gas passage and one of the plural supply passages,

wherein at least part of the generated reformat gas is supplied to said at least one combustion gas passage via each supply hole from said one of the plural supply passages of the reforming element, and is burnt downstream of each supply hole.

22. (Previously Presented) The fuel reformer as defined in Claim 21, wherein the plural supply holes are disposed at a substantially predetermined interval along said at least one combustion gas passage.

23. (Previously Presented) The fuel reformer as defined in Claim 21, wherein the reforming element comprises a reformat gas manifold communicating with said at least one reforming catalyst passage and collecting the generated reformat gas; and plural supply passages communicating with the reformat gas manifold, said at least one reforming catalyst passage being disposed between the supply passages,

the fuel reformer comprising:

a partition disposed between the plural supply passages and said at least one combustion gas passage, the partition having the plural supply holes in parts where the plural supply passages overlies or underlies said at least one combustion gas passage,

wherein each supply passage communicates with a corresponding one of the plural supply holes, so that the reformat gas of the reformat gas manifold is supplied to said at least one combustion gas passage via the supply passages and supply holes.

24. (Previously Presented) The fuel reformer as defined in Claim 23, comprising a starting material vapor manifold to which vapor of the fuel is supplied and which communicates with said at least one reforming catalyst passage.

25. (Previously Presented) The fuel reformer as defined in Claim 23, wherein the partition is a horizontal part provided in the combustion element or a partition plate interposed between the reforming element and combustion element, and the horizontal part and partition plate are substantially perpendicular to the lamination direction of the reforming element and combustion element.

26. (Previously Presented) The fuel reformer as defined in Claim 23, wherein the supply passages open into the reformat gas manifold, and

the reformat gas of the reformat gas manifold is supplied to said at least one combustion gas passage via the supply passages and supply holes.

27. (Previously Presented) The fuel reformer as defined in Claim 23, wherein the combustion element further comprises a main passage which supplies the reformat gas to the supply passages of the reforming element, the main passage communicating with the reformat gas manifold via a distribution manifold, and

the partition is disposed between the main passage and supply passages and further comprises plural distribution holes which connect the main passage and supply passages.

28. (Previously Presented) The fuel reformer as defined in Claim 27, wherein the distribution manifold and reformat gas manifold are configured to communicate by an external pipe of the fuel reformer.

29. (Previously Presented) The fuel reformer as defined in Claim 23, wherein the supply passages of the reforming elements overlies or underlies said at least one combustion gas passage of the combustion elements.

30. (Previously Presented) The fuel reformer as defined in Claim 24, wherein the reforming element comprises a starting material manifold to which liquid fuel is supplied, and a starting material vaporization passage connecting the starting material vapor manifold and the starting material manifold,

the liquid fuel from the starting material manifold vaporizes in the starting material vaporization passage, and

the vaporized fuel is introduced into the starting material vapor manifold.

31. (Previously Presented) The fuel reformer as defined in Claim 30, wherein at least one of the supply passages and at least one of the supply holes are disposed between the starting material vaporization passage and one of said at least one reforming catalyst passage closest to the starting material vaporization passage.

32. (Previously Presented) The fuel reformer as defined in Claim 26, comprising additional fuel supply means which supplies additional fuel to at least one of the openings of the supply passages in the reformat gas manifold.

33. (Previously Presented) The fuel reformer as defined in Claim 27, comprising additional fuel supply means which supplies additional fuel to the distribution manifold or an external pipe, the external pipe communicating the distribution manifold and reformat gas manifold.

34. (Previously Presented) The fuel reformer as defined in Claim 21, wherein said at least one reforming catalyst passage of the reforming elements is formed by a groove, and a partition member which seals the groove.

35. (Previously Presented) The fuel reformer as defined in Claim 21, wherein said at least one combustion gas passage of the combustion element is formed by a groove, and a partition member which seals the groove or a horizontal part of the reforming element, the horizontal part is substantially perpendicular to the lamination direction of the reforming element and combustion element.

36. (Previously Presented) The fuel reformer as defined in Claim 35, wherein a wall surface of said at least one combustion gas passage of the combustion element supports an oxidation catalyst.

37. (Previously Presented) The fuel reformer as defined in Claim 21, wherein the pressure in the combustion element is set lower than the pressure in the reforming element.

38. (Previously Presented) The fuel reformer as defined in Claim 21, comprising a hydrogen separation membrane element in contact with the reforming element, the hydrogen separation membrane element comprising at least one hydrogen penetration membrane and a hydrogen-rich gas passage connected to a hydrogen-rich gas outlet,

wherein hydrogen generated in the reforming element penetrates the hydrogen penetration membrane and flows through the hydrogen-rich gas passage.

39. (Previously Presented) The fuel reformer as defined in Claim 38, wherein the hydrogen membrane element comprises said at least one hydrogen penetration membrane alongside the hydrogen-rich gas passage, and

the reforming element and combustion element are laminated in this order on said at least one hydrogen penetration membrane on the opposite side to the hydrogen-rich gas passage.

40. (Previously Presented) The fuel reformer as defined in Claim 24, wherein the starting material vapor manifold and reformat gas manifold are formed so that they are open to the outer circumferential surface of the fuel reformer when the combustion element, reforming element, partition and/or hydrogen penetration membrane element are laminated, and wherein the starting material vapor manifold and reformat gas manifold are sealed by their respective cover member.